Title and abstract of talks for the RMS number theory symposium.
All talks are of 55 minutes duration.

1. U. K. Anandavardhanan (IIT, Bombay)
   Title: Conductors of functorial lifts

   Abstract: In this talk, we first introduce the Artin conductor of a given representation of a local Galois group, and then discuss the problem of finding explicit conductor formulas, in terms of the Artin conductor of the original representation, for several other representations naturally associated to the given representation. This work is joint with Amiya Kumar Mondal.

2. V. G. Narasimha Kumar Cheraku (IIT, Hydrabad).

   Title: On the algebraicity of the Fourier coefficients of half-integral weight modular forms

   Abstract: It is well-known that a normalized Hecke eigenform of integral weight has alge braic Fourier coefficients . Moreover, there exists a number field containing all these. However, for half-integral weight modular forms, there are no analogous results known. In a joint work with Soma Purkait, we show that the algebraicity of
   the Fourier coefficients of half-integral weight modular forms can be determined by checking the algebraicity of the first few of them. We also give a necessary and sufficient condition for a half-integral weight modular form to be in Kohnen's +-subspace by considering only finitely many terms.

3. Baskar Balasubramanyam (IISER, Pune).

   Title: Congruence of automorphic forms and adjoint L-values

   Abstract: In 1981, Hida proved that a prime p (outside a finite set of exceptions) is a congruence prime for a cusp form f if p divides the algebraic part of the adjoint L-function at a critical point. Similar results are now known for automorphic forms with respect to GL_2 over any number field. I will talk about how these ideas can be generalized to automorphic forms with respect to GL_n over any number field F. This is joint work with A. Raghuram.

4. Sanoli Gun (IMSC, Chennai).

   Title: Sign change of Fourier-coefficients of Siegel cusp forms

   Abstract: In this talk, we will discuss about sign change of Fourier-coefficients of Sigel cusp forms. This is report on a recent joint work with Y-J Choie and W. Kohnen.

5. B Ramakrishnan (HRI, Allahabad).

   Title: Jacobi forms and differential operators.

6. K. Srinivas (IMSC, Chennai).

   Title and abstract:-TBA.

7. Supriya Pisolkar (IISER, Pune).

   Title and abstract:-TBA.

8. S. A. Katre (University of Pune).

   Title: Matrices over maximal orders in quaternion division algebras as sums of squares and sums of cubes.

9. M. Manickam (Kerala School of Mathematics).
   Title and abstract:-TBA.